# Unclassified AD-A235 493 SECURITY CLASSIFICATION OF THIS PAGE Form Approved REPO OMB No. 0704-0188 1a. REPORT SECURITY CLASSIFICATION RKINGS Unclassified 2a. SECURITY CLASSIFICATION AUTHORITY 3. DISTRIBUTION/AVAILABILITY OF REPORT Unrestricted 2b. DECLASSIFICATION / DOWNGRADING SCHEDULE 4. PERFORMING ORGANIZATION REPORT NUMBER(S) 5. MONITORING ORGANIZATION REPORT NUMBER(S) DOD POP HMTR/AYD 91-002 6a. NAME OF PERFORMIN ORGANIZATION 6b. OFFICE SYMBOL 7a. NAME OF MONITORING ORGANIZATION (If applicable) SMCAR-AEP Packaging Division 6c. ADDRESS (City, State, and ZIP Code) U.S. Army Armament, Research, Development and 7b. ADDRESS (City, State, and ZIP Code) Engineering Center Picatinny Arsenal, NJ 07806-5000 8a. NAME OF FUNDING/SPONSORING 8b. OFFICE SYMBOL 9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER **ORGANIZATION** (If applicable) 8c. ADDRESS (City, State, and ZIP Code) 10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. WORK UNIT ACCESSION NO. **PROJECT** TASK NO. NO. 11. TITLE (Include Security Classification) Performance Oriented Packaging Testing of M248El Warhead 12. PERSONAL AUTHOR(S) Anthony D'Angelo, P.E. 13a. TYPE OF REPORT 13b. TIME COVERED 14. DATE OF REPORT (Year, Month, Day) 15. PAGE COUNT Final **FROM** TO 16. SUPPLEMENTARY NOTATION M-02413 18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) 17. COSATI CODES Performance Oriented Packaging, POP, M248EI Warhead Wood FIELD GROUP SUB-GROUP Box $\leqslant \zeta_{i_1} \setminus \zeta_{i_2} \in \mathbb{R}^n$ 19. ABSTRACT (Continue on reverse if necessary and identify by block number) This report contains the testing and test results performed on the M248El Patriot Warhead (packed 1 warhead/box).

Anthony D'Angelo, P.E. 201–247–6017

DD Form 1473, JUN 86 Previous editions are obsolete. S

☐ DTIC USERS

A SAME AS RPT.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT

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22a. NAME OF RESPONSIBLE INDIVIDUAL

SMCAR-AEP

SECURITY CLASSIFICATION OF THIS PAGE

22b. TELEPHONE (Include Area Code) | 22c. OFFICE SYMBOL

21. ABSTRACT SECURETY CLASSIFICATION Unclassified



# Assession For NTIS GRAMI DTIC TAR Unannoymond Justification

# Distribution / Available

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# 1. DATA

### CONTAINER:

Type: Container, Wood

UN Code: 4Cl

Nomenclature: Box, Wood for Warhead Specification Number: PPP-B-621

Drawing Number: 9340600

Material: Wood

Capacity: 83.2 kg (183 lbs.)

Dimensions: 54.6 cm x 50.8 cm x 68.6 cm (21 1/2 in x 20 in x 27 in)

Gross Weight: 112 kg (246.4 lbs.)

### PRODUCT:

Name: M248El Warhead Drawing Number: 9340599 United Nations Number: 0286 United Nations Packing Group: II

Physical State: Solid

Amount per Container: 1 Warhead

### 2. BACKGROUND:

This report contains the testing and test results performed on the M248El Warhead. The wood box (PN 9340600) contains 1 warhead and is packed in accordance with drawing no. 9340599. Tests were performed in accordance with Performance Oriented Packaging test regulations.

### 3. TEST:

# DROP

Boxes were dropped once each from 1.2 meters (4 feet). The boxes were dropped on 3 inch solid steel plate reinforced by 18 inches of crushed rock in 5 different orientations. The orientations were as follows:

Bottom
Top
Side, Long
Side, Short
Bottom Corner

# LOOSE CARGO VIBRATION

Vibration test were performed on 3 boxes for 1 hour each. The frequency applied caused the box to be raised from the vibrating platform 1/16 in. (1.6 mm).

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4. RESULTS:

The containers passed all tests since none of the contents were discharged. They are considered safe for international transportation in accordance with Performance Oriented Packaging regulations.

5. REFERENCED MATERIAL:

- a. United Nations, "Transport of Dangerous Goods," 6th Edition
- b. Federal Register Part II

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